# U.S. Environmental Protection Agency Environmental Financial Advisory Board

# **Meeting Summary**

Workshop on Financial Assurance in EPA Programs

June 17, 2008 - New York, NY

# Table of Contents

Participants	3
Introductions/Meeting Overview	5
Overview of the Process for the Use of Insurance	5
Panel 1: View of Insurance Industry and Underwriters Discussion	9
Panel 2: The View of the Regulators	12
Panel 3: Industry Perspective	<u>14</u>
Public Comment	20
Open Discussion.	20
Agenda	24

# **Participants**

# EFAB Designated Federal Official

 Stan Meiburg - EFAB Designated Federal Official (DFO) National EPA Liaison, Centers for Disease Control and Prevention, National Center for Environmental Health/Agency for Toxic Substances and Disease Registry

# EFAB Members

- Justin Wilson Partner, Waller Lansden
- Mary Francoeur Managing Director, Assured Guaranty Corp.
- Kelly Downard Chairman, Louisville, KY Metro City Council
- Dr. Jim Tozzi Director Multinational Business Services, Inc.
- Michael Curley Executive Director, The International Center for Environmental Finance
- Rachel Deming Partner, Scarola Ellis LLP
- Lindene Patton Chief Climate Product Officer, Zurich Financial Services, Zurich North America

# EFAB Expert Witnesses

- Richard Swanson (GA) Chair, Tanks Subcommittee, Association of State and Territorial Solid Waste Management Officials
- Peter B. Meyer Director, Center for Environmental Policy and Management, University of Louisville

### EFAB Staff

- Vanessa Bowie, EFAB Staff
- Pamela Scott, EFAB Staff
- Timothy McProuty, EFAB Staff

#### U.S. Environmental Protection Agency

- Robert Hall Office of Solid Waste
- Dale Ruhter Office of Solid Waste
- Donna Vizian Assistant Regional Administrator, Region II
- George Faison Office of Solid Waste
- Bruce Kulpan Office of Enforcement of Compliance Assurance
- Nena Shaw Office of Enforcement of Compliance Assurance
- Mike Galbraith- Office of Solid Waste
- Bob Maxey Office of Solid Waste

### Speakers and Panelists

• Chiara Trabucchi – Principal, Industrial Economics, Inc., Cambridge, MA

## Panel 1 - Insurance Industry/Underwriters

- Steven Goebner Senior Underwriter, Zurich North America
- Richard Sheldon, Jr. Senior Vice President, Willis Insurance
- Marcel Riccardelli Senior Vice President XL Insurance Environmental XL

# Panel 2 – Regulators

- Maureen Leary Assistant Attorney General, New York State Department of Law Environmental Protection Bureau
- Kimberly Goetz Financial Assurance Officer, Hazardous Waste and Toxics Reduction Program, Washing State Department of Ecology
- Paul Bailey Senior Fellow, ICF International
- James Grace Senior Staff Counsel, Office of Legal Counsel, California Department of Toxic Substances Control

# Panel 3 - Industry

- Bill O'Connor Senior Vice President, Clean Harbors Environmental Services (responsible for managing financial assurance program)
- Gordon Hart Partner, Paul, Hastings, Janofsky & Walker LLP.
- Vince Lord Distinguished Scientist, Rohm and Haas
- Daniel Chefitz Partner, Morgan, Lewis & Bockius, LLP (on behalf of Mike Steinberg representing RCAP)

#### Audience

- Phillip Retallick Senior Vice President for Compliance and Regulatory Affairs, Clean Harbours Environmental Services
- Mike Balmer Broker, Willis Insurance
- David Case Executive Director, Environmental Technology Council
- Robby Keybrick -
- William Sawyer Office of Regional Council, EPA Region II
- Anna Mills Director of Financial Assurance, Waste Management
- Sue Briggum Director of Government Affairs, Waste Management
- Chris Delauter Zurich Insurance
- Mary Ann Susavidge XL Insurance

# **Introductions/Meeting Overview**

Stan Meiburg, Designated Federal Official of the EFAB welcomed members and guests to the workshop on Financial Assurance. He introduced the topic of Commercial Insurance as a Mechanism for Financial Assurance. He acknowledged the members of the board and guests and thanked the presenters for attending. Introduced Mary Francoeur, Chair of the Financial Assurance Workgroup and Justin Wilson, Chair of the Commercial Insurance Project.

Mary Francoeur thanked and welcomed the group and made introductory remarks. Ms. Francoeur acknowledged Justin Wilson and EFAB member Kelly Downard who is working on cost estimation.

Justin Wilson welcomed the group and acknowledged the presenters.

Donna Vizian, Assistant Regional Administrator Region II made welcoming remarks.

Stan Meiburg invites Robert Hall from EPA Office of Solid Waste to present a review of the project.

Robert Hall made welcoming remarks. Introduced Dale Ruhter from EPA Office of Solid Waste and Bruce Culpin from EPA Enforcement. Thanked the board members for their continued work on financial assurance for EPA and for past contributions. Introduced the topics today's meeting will address:

- o What is the nature of insurance for financial assurance purposes?
- What are the strengths and weaknesses of insurance?
- o Who can furnish this protection?
- o Many people have suggested standardized policy language for insurers, would this be advisable and how might it be developed?

Stan Meiburg thanked Robert Hall and introduced the three panels. Panel one representing the insurance industry to seek out the view of underwriters, panel two which represents regulators and panel three which represents the industry perspective. Requests that those in attendance introduce themselves after which Mr. Meiburg turned it over to Justin Wilson. Justin Wilson introduced Chiara Trabucchi.

# Overview of the Process for the Use of Insurance: Chiara Trabucchi, Principal, Industrial Economics Incorporated

Overarching context of use of insurance as a means of financial insurance.

- Basics of insurance. Resource Conservation Recovery Act (RCRA) insurance model and Comprehensive Environmental Response, Compensation, Liability Act (CERCLA).
  - o Data to help inform the decision process:
    - Congress mandates that owners/operators of facilities provide financial guarantees based on the "polluter pays" principle - assuring that

owners/operators remain responsible for adverse environmental impact. If you are required to pay for cleanup, closure and post-closure you'll make better operating decisions.

- Market impact
  - Capital investment financial assurance encourages firms to design and site facilities to minimize adverse environmental costs.
  - Deterrence and Precaution better operating decisions if you are financial responsible for the result of those decisions.
  - Optimal pricing and consumption firms are more stimulated to internalize costs if they're required to post financial responsibility for their actions.
- Financial Framework Responsibility
  - Insure adequate funds if needed
  - Insure funds are accessible
  - Establish minimum standards for financial institutions securing funds or underwriting credit risk
  - Insure continuity of financial responsibility if and when facilities are transferred
- Issues
  - Risk that owner/operator unable to pay for cost of closure, postclosure, corrective or remedial action, and;
  - Risk that such costs will be borne by the public
- Solution
  - Risk Management impact beyond the RCRA model
  - Financial certainty
- Basics of Insurance
  - Insurance policy is a contract between owner/operator and insurer.
  - Insurer pays on behalf of policyholder for claims against policy.
  - Two types of insurance:
    - Risk transfer policies similar to general liability. Assumes
      transfer of future expected loss from policyholder to insurer in
      return for premium. Because of the high probability of occurrence
      of closure and post-closure risk transfer policies are no longer
      being used to underwrite RCRA environmental risk.
    - Finite risk or fully funded policies Assume transfer of future protected loss up to a finite amount. Finite amount predicated on cost estimation. Policyholder pays the insurer upfront premium equal to net present value of the future expected stream of costs. Insurer may allow the company to pay premiums over time or may require additional security or guarantees or both based on financial strength of company.
- Financial responsibility
  - RCRA, Toxic Substances Control Act (TSCA), Safe Drinking Water Act (SDWA), CERCLA - environmental statutes that govern different environmental media.
    - RCRA requirements Federal

- Insurer must be licensed to transact the business of insurance or be eligible to provide insurance as an excess in surplus lines provider
- o Limit of liability must equal the current estimated cost of closure, post-closure no deductibles
- o Policy must be automatically renewable
- o Must include provision stipulating assignment
- 120 notice policy cancellation allowable for premium nonpayment unless closure ordered or policyholder files for bankruptcy

# • CERCLA requirements

- Does not have prescriptive regulations that have been codified.
- o Has an incremental annuity portion cost overrun.

#### Summary:

- Risk exposure to insurer is limited.
- Insurance is not an unlimited performance guarantee.
- Insurer will pay for legitimate claims up to stated limit of policy's face value. Cost estimation is fundamental.
- Insurance policy predicated on timely and accurate cost estimates.
- No insurance contract can or should hedge against fraud.

# Raw Data

- Single largest coverage value is self-insurance (Financial test or corporate guarantee); insurance is next and then letter of credit.
- Ratings no RCRA requirement. Five states require ratings for insurers underwriting environmental obligations including RCRA. BLM and MMS require ratings for insurers of DOI.
- Seven states placed restrictions on the use of captive insurance.
- 11 states have additional licensing requirements on insurers.
- Standardized policy wording five states require that insurance policy be submitted with COI and/or stipulate that policy wording is subject to review and approval by regulator.

#### o Final considerations

- Federal level no minimum financial credit risk rating standards for insurers underwriting RCRA obligations.
- Insurance is not an unlimited performance or financial guarantee liability limit is predicated on your cost estimates.
- Sublimits regulators need to be careful of the concept.
- Relying solely on the certificate to conform the policy language to regulations introduces risk.
- Cost estimation if you don't have sound cost estimates your financial assurance instruments may be undervalued.
- If you have insurers unwilling to underwrite a certain risk that's sending you a message.

#### Question & Answers

Question by Justin Wilson: Policy terms; if the certificate wouldn't necessarily notify the agency of any policy limitations. Do you see any requirements for any specific terms in the insurance policy?

Answer by Chiara Trabucchi: Are you talking standardized policy wording? On the one hand I can see where regulators would probably welcome standardized policy language because you're talking about a very esoteric very complex set of contract terms. Each facility is site specific so to some degree to standardize that policy wording I think could be challenging. On the other hand you don't have many insurers underwriting this kind of risk. The question really should be posed to your insurers and your underwriters to what degree do they believe that standardized policy wording is possible and appropriate. I would ask the regulators that same question. Policies have different endorsements and different exclusions and regulators end up relying on the certificate.

Question by Justin Wilson: Is the certificate adequate or should there be more?

Answer by Chiara Trabucchi: I have seen states that have created more restrictive requirements in their state regulations that require notification of riders and endorsements. In Missouri they receive the certificate and attached are copies of the endorsements distilling the specifics of the policy that the regulator needs to be aware of.

Question by Justin Wilson: A major function of insurance here is insurance against an occurrence that's unlikely to happen but it's insurance for an occurrence that's going to happen it's just a question of whether the operator has got the money.

Answer by Chiara Trabucchi: Yes and a factor of whether that insurer is going to be the insurer underwriting the risk when it happens. Because of the long time horizon for some of these facilities you may have an insurer post a financial assurance instrument today and 10 years from now it might be another insurer.

Question by Phillip Retallick, chief compliance officer for Clean Harbors: Comments that in his experience he hasn't seen too many states that will accept just the certificate - the financial assurance officials at the state level want to see the underpinnings of the certificate.

Answer by Chiara Trabucchi: Agrees that for companies of the size of Clean Harbors most states request a copy of the policy.

Question by Rachel Deming: What is the dollar percentage of the policies you reviewed for small companies using the policies and how many are large?

Answer by Chiara Trabucchi: Couldn't say with certainty. Historically, in RCRA Subtitle C arena it has not been a statistically significant number. However, insurance is used more frequently when companies cannot get a letter of credit. Because of the current credit crunch, smaller companies are going to the insurance markets and even the surety market, because they are unable to obtain letters of credit.

# Panel 1: View of Insurance Industry and Underwriters Discussion

Justin Wilson introduced Steve Goebner, Senior Underwriter for Zurich North America, Richard Sheldon, Senior Vice President at Willis and Marcel Riccardelli from XL Insurance.

Steve Goebner begins the session by asking what protections are furnished by the insurance mechanism and how is it furnished? He reiterates Chiara's definitions. Suggestion was made that an all risk standardized policy may be beneficial, but warns of restrictions in that model. Environmental insurance industry is geared towards customizing exposures and programs to individual clients' needs. Going to an all risk type policy is problematic. There is a substantial amount of competition in the insurance market which is valuable as it keeps the industry motivated to enhance coverage.

Marcel Riccardelli comments that it's not just price competitiveness, but that each company has its own appetite and niches.

Steve Goebner comments that the strength of the industry is the ability to adapt and change policies to suit particular clients' needs that change over time.

Richard Sheldon comments on changing insurance markets and ratings.

Steven Goebner comments on industry adaptation to changing needs and opens the discussion up for questions.

# Question & Answers

Marcel Riccardelli discusses the state requirements that challenge the ability to create a standardized policy program.

Richard Sheldon comments on the role of the basic insurance program in its true risk transfer basis as not being meant to be the funding source for an ultimate closure and importance of understanding that insurance is there for emergency purposes; the bankruptcy, the forced closure because of violations, etc.

Marcel Riccardelli responds to a question by Justin Wilson about insurance rates saying as we get close to closure the premiums would go up.

Marcel Riccardelli responds to a question by Donna Vizian; Does the actual nominal value of risk increases over the life of the facility in all facility types or is that dictated by the class of facility? It is dictated by type of facility, regulatory language and how the mechanism is designed to fit within the insurance program and language requires flexibility. Donna Vizian follows up by asking if it is customary to pay out all at once or to pay as you go as closure occurs. Marcel Riccardelli responds that although they have done both he believes a pay as you go method is more appropriate. Donna Vizian follows up by asking if pricing would be impacted in each state if there was a risk of requirement of immediate payout? Marcel Riccardelli responds that it absolutely would.

Dale Ruhter asks from the standpoint of an environmental regulator should they be indifferent or should they have any preference between risk transfer and finite risk policies? Steven Goebner responds that the more information provided the better, but as far as how the mechanisms work at the end of the day the monies will be paid under either procedure.

Marcel Riccardelli comments that concerning the distinction between finite and risk transfer policies - the mechanism is unimportant - the contract and the financial rating and ability to pay are most important factors. They are not mutually exclusive and can be blended in one instrument.

Peter Meyer asks to what extent are there situations in which the regulator is calling for actions and the insured has an approach that would be significantly more cost effective? Is there conflict there? Steven Goebner responds that he has seen a collaboration that has recognized the health and safety and economic impact as well and does not see the conflict that has previously existed. Marcel Riccardelli adds that it's state by state and regulator by regulator.

Rachel Deming asks Marcel if there are any guidelines or recommendations about trying to set some minimum baseline for the regulators on the financial capability of an insurer? Marcel Riccardelli recommends the S&P ratings, the A.M. Best ratings and to use an A rated carrier or better.

Jim Tozzi comments on his skepticism that the self-insurance program is really viable and asks do you see the type of insurance that you sell and the number of carriers selling as an expansive, stable or decreasing mode. Steven Goebner responds that it is getting more competitive and expanding. Jim Tozzi comments that he thinks the \$5 billion is miniscule to the liabilities facing the United States government and asks is the total value of the placements of the industry going up? Chiara clarifies the number as correlating to RCRA obligations for closure/post-closure corrective action and TSCA and not including CERCLA obligations or underground storage tanks or SWDA. Jim Tozzi comments that he finds it remarkable that the total U.S. exposure to Subtitle C is anywhere near the trivial amount of a billion dollars. As a further clarification of the number Chiara adds that insurance is the second largest instrument in play at 17%, but that the financial exposure is under the corporate financial test and the corporate guarantee. Under current Subtitle C financial test companies are required to benchmark against closure, post-closure and underground injection control obligations. CERCLA and other obligations are not in that number.

Maureen Leary asks Chiara to clarify that the total face value of the policies that she is talking about are just the policies that Chiara has reviewed at Industrial Economics and is not the industry. She clarifies her research as 138 finite risk policies, \$900 million correlates to the face value of those policies and includes just RCRA and the real risk exposure is the amount that companies are self-insuring.

In response to Maureen Leary request to quantify the percentage of finite versus risk transfer policies Richard Sheldon comments that smaller obligations, under \$25 million, are likely mostly risk transfer designs and the much larger are likely some combination including finite.

Kelly Downard asks for some clarification of the depth of review that the insurance group does of policies. Steven Goebner replies that they will ask for all reports and data available from client, but also do independent engineering review as well on the facilities for cost estimating. Kelly Downard follows up with how do we find out that your independent evaluation is coming up with the answer that says we've got close to the right number? Marcel Riccardelli replies that the goal is to satisfy what the insured and the government have determined is the value. Chiara comments that other federal agencies require third party warrantees or certifications of cost estimates. Currently RCRA does not have such a requirement. Jim Tozzi suggests the board should look at considering the requirement.

Mary Francoeur asks once you pay a claim do you have recourse to the insured to recoup paid claims? Steven Goebner answers it depends on the structure of the program.

Justin Wilson discusses the fact that no notice is given to the state if there is something unusual about the policy and whether furnishing the certificate is sufficient. Richard Sheldon replies that the certificate merely states that the policy requires with the minimum state requirements and no further notice is given unless it is requested. Justin Wilson followed up by asking Richard Sheldon if when he delivers a certificate to the state do the states realize the limitations that may accompany that certificate? Richard Sheldon replied in some cases yes and some no and further states that he has never had any comments back from the state saying that something was unsatisfactory. Marcel Riccardelli adds that he had situations concerning both transfers and new policies where a state individual reviewed the policy and came back with either questions or comments on the coverage. Richard Swanson asks if the regulatory agency were added as an additional insured, would there be any obligation to be sure they understand the terms of the policy as an additional insured. Marcel Riccardelli states that it is still their obligation to understand the contract.

Justin Wilson commented that the position of the insurance company that their obligation is limited to what the contract provides. Some courts don't agree with that. Do you put that into your pricing that there may be a contract dispute? Steven Goebner replies that as those things develop they are taken into consideration on how they structure and price programs and whether they can offer insurance at all. Marcel Riccardelli adds that they underwrite to the contract. If a ruling comes along and changes the contract interpretation we will change our underwriting.

Rachel Deming asks sometimes you don't write insurance in some states because of too strict guidelines, can you give examples of some guidelines that make it more difficult to write in those states? Marcel Riccardelli replies it's a matter of managing through the non-cancellation provisions, management of the payment scheme and the claims process. Steven Goebner add that previous experience with regulatory bodies in those states also comes into play.

Peter Meyer comments concerning automatic renewal and that as you get closer to closure that the premium might rise whether or not the underwriting takes into consideration the probability of the failure to renew. Marcel Riccardelli responds that the underwriting does not contemplate a non-renewal. It contemplates the insured's ability to satisfy the financial assurance on its own. Long term viability of the company is built into the rates because they are looking at the credit exposure of the company.

Stan Meiburg thanks the members of the panel and invites the panel to stay for the next panel.

# **Panel 2: The View of the Regulators**

Stan Meiburg introduces the next panel: Paul Bailey, Senior Fellow< ICF Internatinal; Kimberly Goetz, Financial Assurance Officer, Washington State Department of Ecology; James Grace, Senior Staff Counsel, California Environmental Protection Agency; and Maureen Leary, Assistant Attorney General, Environmental Protection Bureau of the NY General's Office.

Paul Bailey gives background and distinctive features of insurance as a mechanism for financial assurance and the views of environmental regulators' concerns about the use of insurance.

James Grace gives a background on his perspective as legal advisor for the financial assurance unit in the Department of Toxic Substances Control for the California EPA.

Kimberly Goetz from the Financial Assurance Office for the Washington State Department of Ecology in the Hazardous Waste and Toxics Reduction Program introduces herself and describes her role handling RCRA Subtitle C financial assurance as well as financial assurance for a number of state programs and the changes they've made in Washington State related to financial assurance as it relates to insurance. They adopted financial assurance requirements for non-RCRA recyclers, eliminating trust fund pay in period (excepting non-RCRA recyclers that were currently in existence who were allowed a five-year pay in period), kept the performance bond option and did not take specific action on captives, adopted the minimum financial strength ratings, adopted tangible net worth increase (now \$20 million instead of \$10 million federal limit) and added a requirement for ecology to be listed as a secondary beneficiary on all policies.

Maureen Leary introduces herself and discusses her perspective dealing with RCRA and CERCLA facility bankruptcy work.

# Question & Answers

Rachel Deming asks Maureen Leary if she can give a sense of the kinds of things she's worked with in connection with financial assurance issues. Maureen Leary answers that if it is litigatable she will see it and that, in her experience, in her state there are specific measures the agency must undertake to document costs so you don't need an insurance company dictating beyond that what they're going to require in order to pay out under the policy, but there are other states that are not that sophisticated. Rachel Deming compliments Kimberly Goetz and Washington's efforts. Kimberly Goetz credits the work of her predecessor Jim Knudson.

Mary Francoeur asks Kimberly Goetz to expand on how she makes determinations in terms of what were adequate rating requirements. Kimberly Goetz states that an impetus for some of the new rulemaking proposals was a site called Clean Care; a fairly new facility that failed very quickly that had only paid into the trust fund for two years. They had underestimated their cost estimate and the majority of waste on site was not RCRA regulated, but regulated under the state program.

Kimberly Goetz comments that closure costs and post-closure are not notoriously underestimated. Richard Sheldon comments that in California they noted there was a significant problem and a program was started three years ago to review closure cost estimates and found that the estimates were normally underestimated by at least 100%.

Maureen Leary asks if the board has the Inspector General's report from 2001 on financial assurance. Stan Meiburg replies that they do. Kelly Downard comments the regulated entity is best capable of determining what should be done for the human health and environment - that may be true, but you're entering into an arena where cost is also important. His experience is the question is not necessarily how much does it cost, but how much do we have. He also raises his concerns of drawing a letter of credit where it is not needed. Kimberly Goetz comments that from a regulator's perspective it doesn't matter if your facility isn't going to close for 20 years, if she gets a notice from your bank that says we're not going to renew this credit you have 120 days to draw it. If she doesn't have a replacement in 90 days the facility is out of compliance and she will draw that letter of credit. It's the responsibility of the facility to replace the letter of credit if you don't want it drawn.

Richard Sheldon comments that in California they have an endorsement that if they attach it to the policy we will agree that the major problems are resolved. We take the position that we cannot dictate the terms of your contract, but if your contract does not meet regulation requirements it won't be accepted. Justin Wilson requested that Richard Sheldon send the board a copy of the endorsements.

Justin Wilson requests that Kimberly Goetz, who previously suggested that there may be provisions for model contracts, give some samples of that model language. Justin Wilson asks James Grace if since he indicated that financial strength of insurance companies are a matter of real concern, how he would determine adequate financial strength. James Grace stated that is the reason for a regulatory change he hopes will take place which would require all the policies issued in California to be either authorized or approved by his department of insurance who have filing requirements regarding the strength of the company. Justin Wilson asks Kimberly Goetz whether Washington, like New York, deals with the insurance company in determining when to spend money or do they expect money to be paid over? Kimberly Goetz responds that they have not had to collect on an insurance policy within her tenure, but would expect the pay as you go method similar to a trust fund. Richard Sheldon comments that he can think of only one case where the principals either vanished or were incarcerated. Maureen Leary comments that the regulations say at the commissioner's direction pay the third party.

# **Lunch Speaker: Paul Bailey, Senior Fellow, ICF International**

Stan Meiburg introduces Paul Bailey and invites him to speak about his observations working 30 years in the field.

Paul Bailey gives his personal observations on financial assurance over the years, where we are now, financial assurance problems and the future of financial assurance. In a period where federal leadership has ended in financial assurance, states are now building on the framework laid down by the federal government. Issuing regulations requiring financial assurance doesn't

mean you've solved the problem of facilities that are unwilling or incapable of getting into compliance. He also noted that the amounts of coverage are too low, not just because of the trust fund pay in, but because cost estimation is the weak link in financial assurance. Future applications for financial assurance include cap and trade pollution offsets, wind power, and nuclear power. He summarized by saying his hope is that the in the future financial assurance will be there not only to clean up the bad, but also to sustain the good.

# **Panel 3: Industry Perspective**

Stan Meiburg introduces the third panel: Vince Lord from Rohm and Haas, Daniel Chefitz from Morgan Lewis (on behalf of Mike Steinberg), and Phil Retallick and Bill O'Connor from Clean Harbors and Gordon Hart, Partner at Paul Hastings.

Vince Lord begins by introducing himself to the board as a Distinguished Scientist in the Environmental Health and Safety Division of Rohm & Haas, provider of financial assurance, and manager of solid and hazardous waste CERCLA affairs and issues. His firm has provided financial assurance for 28 sites this year and over the years has been as high as \$200 million plus using a variety of different instruments. He is seeing more and more specific conditions imposed, especially in the CERCLA arena. He commented that they are also concerned about the closure cost estimates and that the costs of closure vary tremendously depending on the amount of resources that need to be put into the site and also into the type of waste disposal that is done for the materials being removed from the site. His firm uses various disposers and they evaluates those disposers. They look at their financial assurance package and whether their closure costs look reasonable for the type of facility they are operating. He summarized by saying choosing a financial instrument and a method is a yearly process for the company depending on several factors; internal costs, cash flow, bond rating, tangible net worth, bank costs, outside auditor costs, insurance premiums, cost of money borrowed and most importantly what the regulators will accept.

Daniel Chefitz thanks the board for the opportunity to participate. He introduced himself as a Partner at Morgan Lewis with responsibilities that straddle the environmental law group and the insurance recovery group. He described his background as providing constructive input to EPA and other federal agencies on critical policy issues affecting the cleanup of contaminated sites. He stated we recognize that financial assurance is an essential element of the legal framework for the cleanup of contaminated sites and fully support sound and reasonable requirements to provide such assurance. The track record of actual experience under the current financial assurance requirements is very strong, quite favorable and provides little support for any assertions that fundamental changes are needed. Weaknesses of insurance as a financial assurance instrument based on his experience working with insurance carriers, the track record of insurers on environmental coverage issues is not good. The history of environmental coverage litigation demonstrates that insurers are generally very litigious and often recalcitrant when it comes to paying for cleanup costs under their policies. In summary he reiterated his confidence in the existing financial assurance mechanisms.

Phillip Retallick introduces himself as the Chief Compliance Officer for Clean Harbors. He offers a brief history of the financial assurance industry and the consolidation of the industry. He

predicts that the price of oil will drive a significant number of new recycling players into the marketplace and that this is an area that we've got to have a safety net against undercapitalized, intellectually deficient folks getting into the oil recycling business. He summarized by saying overall we want to encourage a wide range of financial assurance instruments, it's important to close loopholes, particularly with undercapitalized utilities who are trying to make tests that they can't pass, keep an eye on the oil, solvent, battery recycling folks as a potential area of concern and captive insurance should be an option.

Gordon Hart, Partner at Paul Hastings introduces himself and offers his background representing developers at local governments and engineering firms who are involved in the cleanup of contaminated facilities, many of which are RCRA corrective action facilities. You can't look at the financial assurance regulations and only think about Subtitle C and only think about where they legally apply. They are used in all manner of cleanups. Mr. Hart asks the board when you are thinking about how the regulations should change or how the Subtitle C issues should change please think about how they are likely to be used in other programs. He comments that there is a real tension between the concept of the agency's expectations of a guarantee and the reality of insurance as a risk management product and not a guarantee and questions whether insurance is an appropriate assurance mechanism. Because insurance is fundamentally oriented towards the insurer's duty to the insured and not the insured's duty to a third party government agency, makes it from a lawyer's perspective a very dicey proposition to be over-reliant on insurance as a mechanism for assuring a state. The best function that insurance can play in the financial assurance world is to help with cost estimation as insurance underwriters have gotten very good at estimating costs. He concludes by saying insurance has a role that you have to understand that there is an inherent difficulty in having this private contract primarily for the benefit of a third party and not the insured and that it can very much help with cost estimating.

Stan Meiburg thanks the panel and invites questions.

# Question & Answers

Jim Tozzi asks is he correct in assuming that all four people who made statements today feel that the current financial assurance program is working fine? Each member of the group answers yes. Jim Tozzi then asks, an integral part of the corporate guarantee is the numerical calculation for the financial test that the board has looked at, have you or your clients had those test reviewed by a federal or state employee?

William O'Connor answers that speaking for Clean Harbors they haven't done the test formally getting an actuarial opinion. They looked at it internally. Phillip Retallick answers that he has not. Vince Lord answers that he has. Jim Tozzi asks Mr. Lord if a federal or state employee visited his premises to look behind the numbers. Mr. Lord answers that they have been to the premises and reviewed the numbers and that every year he gets a letter stating they are either approved or not approved. Sometimes there are requests for additional information, but it varies from state to state. Gordon Hart offers that their experience on the program staff is that their clients who use the financial means test, absolutely get reviewed by the state.

Lindene Patten asks the panelists, understanding your assertion that having a choice of instruments is important what would your opinion be if someone came in and said they either were going to eliminate particular mechanisms for availability or that they were going to dictate the terms and conditions of those mechanisms? Phillip Retallick responds that if the federal or state would give them a new overlay that was excessive and a penalty on how they could use their capital to invest in better environmental protection, he would want to debate that and say is this a very good use of my capital when these instruments seem to be working and the program has been in place since 1982 and we haven't had a major catastrophe associated with it. William O'Connor expresses his agreement with Mr. Retallick's comments. Lindene Patten asks a follows up question, one of the emerging issues is the potential for carbon caps and associated financial assurance requirements with climate related risks. Given your experience on the TSDF side do you have an opinion if there are financial assurance regulations promulgated associated in that context do you care what those terms and conditions are and do you believe the discussion here should have some impact in terms of the experience; are there similarities in terms of the need for having flexibility of capital that you think are going to extend to that context? William O'Connor says if he was a guessing person he would say sure. There has to be some parity in the overall universe of where we all work right now and everyone should be held to the same standards depending on their industry.

Michael Curley asks a question of Gordon Hart; other than the strict rules of contract where do we go to protect the third person at the table who is protecting the public health and safety? How do we design a system that takes into account their legitimate interests in what is going on between the two contractual parties? Gordon Hart answers the more pure financial instruments don't have that kind of baggage and that when all you are trying to do is make sure that an amount of money that people generally agree is the right amount is there at a time that people generally agree when it is and how much they want that for the most part that's not really what insurance is for. It's better to use a financial instrument.

Peter Meyer raises the question of the fact that you have at this time the federal government as regulator and 50 individual states with a variety of different requirements at times permitting certain instruments and not others. What kinds of problems arise with regard to having different standards and different facilities? Phillip Retallick answers that they would welcome anything that would help reduce the regulatory burden on them. He further states the industry is the best capitalized it's ever been, it has a group of players that have the staff and resources and capabilities to be world class and his biggest concern is that you will try to build a new recipe when maybe one is not required. He states that he does think there is some need to trim the edges with respect to some of the marginal issues like recycling players.

Gordon Hart echoes Paul's comment when he said that the federal government is not being a leader in many ways on financial assurance and that the states have very much taken the lead. California for 25 years had a separate hazardous waste management system and has something like five times as much waste as regulated as hazardous in California as it is under the federal system and it has worked in California. A robust waste management industry survives because of those regulations because they require people to manage their waste at permitted facilities.

Peter Meyer follows up with Gordon Hart; you made reference to the tension between a contract between the insured and insurer when the beneficiary is the state or the public at large. One of the problems you get into is the moral hazard of how a claim would be made. Have you thought through the implications there and how that might work? Gordon Hart responds that he hasn't, but that there are many moral hazard issues with environmental insurance.

Vince Lord adds a comment to the concept of the states providing insurance. Many states have provided an underground storage tank insurance fund for many years without major problems and there is probably nothing that would inhibit putting forth a similar model for RCRA closure and post-closure.

Lindene Patten asks how much familiarity you have with the underground storage tank funds and how they prioritize their payouts and how long it takes to pay their claims? She cites the Florida Fund as an example. Peter Meyer comments we're talking about seven years being a good rate of payout. Vince Lord comments sometimes the bureaucracy gets in the way of progress. Gordon Hart comments that the underground storage tank fund is a state funded program that benefits private parties. To protect against orphans that the government has to take care of it would be interesting to hypothesize if that particular risk, the risk of a state bearing the cost of cleanup, couldn't be insured which is the converse of the underground storage tank fund.

Justin Wilson addresses the panel. We've heard a lot of talk about whether insurance companies should be rated. Should there be minimum requirements for insurance as far as ratings are concerned? William O'Connor answers economically it would tip the scales. Daniel Chefitz agrees with the other panelists that they use ratings of A or better and comments that his hesitation earlier about ratings was because ratings can shift over time. Justin Wilson follows up by asking the question of standardized language, some states have certain provisions and some don't, does that create problems with you on standardized language? William O'Connor answers no, they have 30 states and can count on one hand the number of states that have asked for detailed specific endorsements or other changes and we've always worked with the support of the underwriter to work through issues. Phillip Retallick adds since Safety Clean every state has asked for both the certificate and the policy to review. Justin Wilson asks in your experience the states know what they're getting when they get the certificate. Phillip Retallick answers yes, they are even more careful now. Vince Lord concurs with Mr. Retallick, but adds that different states use different forms which create an administrative burden and it creates an administrative burden for the states as well. Justin Wilson asks have you had any difficulty getting insurance because of a prescribed term the state may have? Vince Lord answers no, he's gotten a lot of almost refusals on other instruments because of the wording, but not insurance. The other panel members concur.

Gordon Hart comments that he has some concern about standardized language. If it's meant to be an exclusive process, this is the only form that you can use for this purpose, he thinks there are just too many different kinds of circumstances. He also raises concerns that regulations intended for one purpose get used for another. Justin Wilson follows up by asking what about holes in coverage that may not be of concern to the insured, but obviously could be a concern to the regulator community. Gordon Hart answers that he doesn't see any problem with minimum requirements as long as they are as performance oriented as they can be and that they are only

prescriptive when they absolutely have to be and they allow for as much flexibility as possible. Justin Wilson follows up by asking can you think of any minimum requirements that don't exist currently in the regulation? Gordon Hart answers that he can't. Daniel Chefitz adds that his personal view is that as long as there are lawyers and claims made there will always be holes because it's a contract.

Mary Francoeur asks the panel for their issues on the vibrancy of the insurance market and on the cyclicality on the availability of various instruments. William O'Connor answers that as a purchaser of financial assurance he is always out there looking and it's very cyclic. The surety market dried up until a year or so ago and now there are two or three sureties out there. AIG is there. Zurich has their program, XL and Great American came onto the scene. Those are the consistent players and there are some fringe players. Mary Francoeur adds in terms of the cyclicality is it markets, credit crunches, etc. William O'Connor concurs.

Kelly Downard addresses Gordon Hart; you mentioned one of the three areas that cause you great concern and one was cost estimate and cost overruns. Do you have a thought on how that can be corrected? Is there such a thing as a reverse deductible to cover that space if you come in 30% to 50% of your estimate? What about the times that you or somebody else doesn't? Gordon Hart answers that is exactly where he thinks insurance can best serve this environment. The great majority of cleanups now have cost cap coverage associated with them so that cost overrun is being insured against. Justin Wilson comments that the state is not a beneficiary on these policies. Gordon Hart answers that they absolutely can be.

Daniel Chefitz addresses the panel saying that assurance is for the known and expected and insurance is actually great for the unknown and unexpected. While insurance is a great vehicle for that it isn't a fair comparison to other financial assurance vehicles designed for known, expected and estimatable costs. Phillip Retallick comments that the TSDFs do a very good job of estimating costs. They have good guidance and policy from the EPA and some states have their own policy which goes above EPA. The TSDF closure and post-closure cost estimate issues are really on contingencies of 10%, 20% or 30%. Those are the debates. In his experience working with TSDFs he has never had an agency come back and say that you're 100% under where you should be. It's more the contingency costs. For corrective action at other party sites where they may not have as much cost estimate experience they can have problems with their first estimates which may be why some agencies think that some folks really are underestimating their costs.

Jim Tozzi addresses Mr. O'Connor; you said the current system is very good, but then you said that you need a level playing field. You then quoted a very substantial amount of money that your firm pays for this. William O'Connor comments \$300 million. Jim Tozzi continues, was your statement a feeling that there is an inconsistency in terms of compliance or enforcement? William O'Connor answers that yes, there is some inconsistency in the enforcement of some financial insurance requirements and refers the question to Phil Retallick. Phillip Retallick adds you nailed it. We're easier to audit. It's easier for a regulator to focus on us than it is Jim's oil recycling service is East Orange, NJ. Jim Tozzi continues by saying this board's responsibility is to worry about whether the federal government is going to get hosed and that his experience with cost estimates on cleanups at federal sites the numbers were continually off the map across the board. If there are these inconsistencies he sees as a very substantial liability for the federal

government. Even if we fine tune the mechanism and cost estimation if we don't have enough federal resources for enforcement we have suboptimization - doing well what you shouldn't do in the first place.

Stan Meiburg adds; I want the record to show that Dr. Jim Tozzi has just advocated for substantial resources for enforcement.

Vince Lord commenting on Dr. Tozzi's point saying that he did work for a federal agency and the cost of doing things, remediation in particular, was astronomical compared to doing it in private industry. Rachel Deming addresses Vince Lord. In answer to Dr. Tozzi's question you talked about that you also review the financial assurance of the companies that you use. Wouldn't you also have an interest in the viability of the financial assurance program? Vince Lord answers we not only make personal visits, but we do look at their financial records quite closely even with private companies. In his experience reviewing these records he stated he looks at the quality of the instruments and whether the closure cost estimates look reasonable. Another important issue is how long they have been using this particular company or instrument.

Rachel Deming addresses Gordon Hart; when you're talking about cost cap policies and how often they are used you started out saying that you were primarily involved in the redevelopment arena. In a lot of cases these policies have been issued not to the original owners or operators but to the redevelopers and in her experience the redevelopers look for a low cost estimate to start out with and try to insure for cost overruns. Gordon Hart answers he's done a lot of work at waste facilities and his remarks were related to that work. His experience with cost cap programs has been primarily at Brownfields projects, but a high percentage of those are at very large facilities under RCRA corrective action. It's the insurance company that underwrites it and they don't lowball the estimate as it is not in their economic interest.

Stan Meiburg thanked the panel and moved forward to public comment and, if time permits, to open it up for general discussion.

Vince Lord makes two final comments. For the financial test most states require you to add all of your environmental liabilities and sometimes even NRC liabilities if you're doing self-assurance into the financial test. That was unclear this morning. Secondly, there is industry concern particularly in the manufacturing industry. There is a lawsuit in California that has been made by the Sierra Club, et al regarding financial assurance for generators. CERCLA law requires that generators provide some type of financial assurance. If the court orders EPA to develop financial assurance for generators this could really change the dynamics of all the financial instruments unless EPA comes up with something specific for generators. Stan Meiburg notes that EPA is very aware of the lawsuit, the board has talked about it and that's outside the scope of this project.

Stan Meiburg thanks the panel and invites the audience to participate in the public comment section.

# **Public Comment**

Bruce Culpin with EPA Office of Enforcement of Compliance Assurance in Washington DC offers his comments. Listening to the discussion has been fascinating all day. Specifically, UNINTEL's fantasy about insurance at the state level as a backstop because of the third party beneficiary benefiting from a contract agreement. If you stop and think about it I think that exists right now. It's called the Superfund program especially when you think about it taking care of orphans. I think folks in the TSD field would be interested in something like that. You could call it a user fee and it all goes into a trust and when there's an orphan scenario it can pay for the orphan cleanup. The track record is such that you haven't seen anything, it's not broke don't fix it I think you're about to see a lot of direction towards focusing on corrective action at least for the next 10 to 12 years.

Stan Meiburg thanks Bruce Culpin for his comments and opens the meeting up for discussion and comments.

# **Open Discussion**

Justin Wilson invites the representatives from the insurance companies and the regulators for any further comment.

Jim Tozzi suggests that the board ought to address or at least think about Maureen Leary's statements on insurance. Justin Wilson states that they are absolutely contrary to some of the things we've heard. Jim Tozzi goes on to say that her statements about the insurance industry really got his attention. First that point that several people said they can't collect, that it's not unusual that if you have insurance on one of these that you wind up in litigation to get claims. She also was down on a number of other aspects of the insurance industry and that he had heard today from the members of the insurance industry that they weren't in the business to give guarantees; that the whole thrust of their contracts weren't guarantees and Ms. Leary said it most certainly is a guarantee. So there's a huge difference from the information that the board have received at different times about insurance than what we heard today from Ms. Leary.

Steve Goebner comments that he thinks from the insurance perspective he was somewhat taken aback as well. If it's really the tenet of the insured's contract with an insurer is an agreement that when claims arise that they will be paid in a timely manner. It's a legal and an ethical requirement and those in the industry feel that obligation that they take premium for a reason and that the value of the insurance product is the claims paying ability of the carrier. Our product is that piece of paper and it's a guarantee to do something and taking compensation for that. The last thing the insurance carrier wants is to get the reputation that they take the money and never pay.

Stan Meiburg follows up by saying there has been in some previous discussions on other elements of financial assurance that there is this anxiety that insurance will not pay in the event of claims and thanks Steve Goebner for taking on the point. Kelly Downard offers that he doesn't

know that Mr. Goebner got the heart of Dr. Tozzi's question which was the perception on the regulators' part that it's a guarantee for payment. Her term was "I want to be comfortable". Steve Goebner responds; and that's what it's not. It's not that blanket A=B in all circumstances. Justin Wilson offers that you've got a contract, you're bound by the terms of the contract and that's it. I've got the regulation that seems to say that it's a guarantee. Lindene Patten suggests rereading the regulation. It identifies a series of instruments that are permissible for compliance. Those instruments have certain characteristics in practical application. The complexity of the issue is such that unless you practice in this area on a regular basis it's very difficult to understand. She suggests that if you check most state insurance regulations you will find that there is a difference in statute between the licensor and the identification of an entity that is licensed to provide insurance and one that is licensed to provide surety or guarantee. I would suggest that layman's definition of guarantee is not the definition which we are having a discussion with in the insurance industry. Justin Wilson comments; I would suggest that the language that determines this is the language in the federal regulations.

Stan Meiburg asks Marcel Riccardelli to comment. Marcel Riccardelli comments that Chiara discussed the financial ratings of insurance carriers. To be clear what the rating agencies do with an insurance company is they don't look behind the curtain, but they'll make recommendations. The rating agencies go well beyond a desktop review of the financials. On the topic of excess and surplus lines carriers they are licensed and authorized to provide insurance in a state. The State Department of Insurance must review, license and permit the excess and surplus lines carrier to issue policies in that state. They are regulated and financially reviewed. On the subject of the state guaranteed fund, the guarantee is not unlimited; it is subject to a gap by policy by state. He also added that the letter of credit has a credit risk associated with it. The banks are also credit rating agencies. The letter of credit must go through the same type of analysis as the insurance product.

Michael Curley comments we've heard a lot of discussion about keeping the playing field level. Insurance is an inherently different product than a letter of credit. It isn't going to be a level playing field because you are not on the same level. A letter of credit can be cashed. In your system you have claims and it's a much more complex instrument.

Rachel Deming addressing Marcel Riccardelli asks there was talk of the participation of the insurance commissioners; you're both underwriters in this business. Do you guys communicate with the Department of Insurance in the states or the regulatory people? Marcel Riccardelli answers our regulatory people have communication with the insurance regulator. Rachel Deming comments and you guys will deal with the insured and the environmental regulators.

Jim Tozzi comments I don't think we'll resolve this today, but I think the board has to look very seriously at what Ms. Leary from New York said. I don't want to give undo deference to government, but New York is one of the biggest states. Here is a senior official from one of the biggest states in the nation who unequivocally said that insurance is a guarantee. Justin Wilson adds that's what the regulation says. Jim Tozzi continues, I cannot as a member of board, and not being an expert, summarily put away that comment of a very senior official. There may be a lot of people that work on the insurance side, but as a public policy issue when you have a public statement before a public board with that strength its incumbent upon the board to address that

very big misconception. Right or wrong that kind of difference generates a lot of friction in the system. The board has to address that difference.

Chiara Trabucchi offers a comment. I would offer that New York has perhaps gone beyond the boundaries of what the original statutory intent and regulatory intent at the federal level was for insurance. If you look at the statute and regulations and read the preamble language it does not consider the use of a standby trust fund for insurance, whereas a standby trust fund is being used for letters of credit and financial guarantee (surety) bonds where there is something to catch the funds when it gets poured. There is no similar financial mechanism for insurance. The original intent of insurance as a means of financial assurance was reimbursement of claims made. New York has pushed it an extra step.

Gordon Hart asks to go back to the claims issue. Because these policies are so complex and they aren't boilerplate, claims are tough. That doesn't mean they're not paid. It is an extremely difficult process to get claims paid. The insurer has a right to ensure that they're not paying outside of their obligations. Mary Francoeur asks William O'Connor if he has ever made a claim on an insurance policy. Mr. O'Connor responds that he has not. He has closed two facilities orderly and never made a claim. Vince Lord comments that he has not made a claim on a RCRA site, but on Superfund sites. Rachel Deming responds that they have for corrective action in Superfund, but not on a closure post-closure. Mary Francoeur asks do you think you would be able to purchase insurance again if you ever made a claim on a RCRA site? Phillip Retallick and William O'Connor respond yes.

Richard Swanson comments that the state of Florida is looking at reinstituting a state fund to start paying USD cleanups because the claims rate and payment from insurance companies is so abysmal in the state of Florida. You may have to wonder if it's advantageous to the insurance industry to litigate and refuse to pay the smaller claims rather than the big claims because smaller owners and operators cannot litigate and do business with the insurance companies on the same level playing field with the larger companies.

Marcel Riccardelli comments he has encountered regulators where it was a dump of money and in that case it was a simple determination. Environmental issues are just fundamentally by their nature multi-stakeholder, complex and difficult to fully define which leads to complex claims handling not claims denial.

Peter Meyer adds that the reputation of the industry when it comes to environmental insurance has to do with the level of ignorance of a lot of the buyers of the coverage. At the time of the Brownfields a lot of the problem was that people bought policies that in fact didn't cover them for the risk that they really were facing and hadn't read the policies adequately. The other issue is the expectation that any instrument such as this can in fact provide assurance. When looking at the regulations and how the pieces fit together we also need to look at the way in which the regulators themselves manage the money in situations.

Paul Bailey comments on the regulations anticipating insurance being a guarantee. Most regulatory language when describing the options when they get to insurance they do use the term guarantee. In terms of what was the intent in '78, '80 and '81 when the original proposals came out, this stuff was new and the EPA was crafting the regulations they relied heavily on input

from the insurance community. On the issue of certificate versus the endorsement I remember saying to folks at the agency, black letter insurance law says a certificate is evidence of insurance, but does not modify the insurance policy. The EPA people making the decisions at that point said no, we've been assured by the industry that the certificates are financed. When we look back and say what was the original intent at the time folks knew a lot less than you all know now and had to rely on the only people available.

Jim Tozzi responds saying I got the thrust of your comments to mean that if guarantee is in there the insurance industry was working on the regulation and you give them credit for that. Is that correct? Paul Bailey responds no. Guarantee got in there, perhaps it's conceptually dissident with other pieces of the regulation and that's evidence that EPA hadn't figured it all out and put all the pieces together. Jim Tozzi responds that there were a lot of hands in that and if the term guarantee got in there he wouldn't blame it all on EPA. Kelly Downard adds that it says "the policy will guarantee" it doesn't say "the policy is a guarantee" and there's a big difference.

Stan Meiburg thanks everyone for their participation and adjourns the meeting.

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY ENVIRONMENTAL FINANCIAL ADVISORY BOARD

# Workshop on Financial Assurance in EPA Programs June 17, 2008 - New York, NY

# **AGENDA**

Topic: Issues concerning Insurance as a Mechanism for Financial Assurance

# Questions to be addressed:

- 1. What is the nature of insurance for financial assurance purposes (i.e. to whom is this protection furnished and what protection is furnished)?
- 2. What are the strengths and weaknesses of insurance?
- 3. Who can furnish this protection (i.e. are there minimum capitalization or other requirements for insurers)?
- 4. Many people have suggested standardized policy language for insurance. Would this be advisable and, if so, how might it be developed?

7:30 - 8:30 Registration

8:30 – 8:45 Introduction and Welcome

Stan Meiburg, EFAB Designated Federal Official Mary Francoeur, EFAB Chair, Financial Assurance Workgroup Justin Wilson, EFAB Chair, Commercial Insurance Project Donna Vizian, EPA Region 2 Assistant Regional Administrator

8:45 – 9:00 Charge from the Agency

Robert Hall, EPA Office of Solid Waste

9:00 - 9:30 Overview of the Process for the Use of Insurance

Chiara Trabucchi, Principal Industrial Economics, Incorporated

# 9:30 - 11:00 PANEL 1: Insurance Industry/View of Underwriters

Steven Goebner, Senior Underwriter Zurich North America

Richard Sheldon, Jr., Senior Vice President Willis

Ken Burrell AIG

Marcel Riccardelli, Senior Vice President XL Group

#### 11:00 – 11:15 BREAK

# 11:15 – 12:30 PANEL 2: The View of the Regulators

Paul Bailey, Senior Fellow ICF International

James J. Grace, Senior Staff Counsel California Environmental Protection Agency

Kimberly Goetz, Financial Assurance Officer Washington State Department of Ecology

Maureen F. Leary, Assistant Attorney General Environmental Protection Bureau of the New York General's Office

# 12:30 – 1:30 Lunch Speaker

Paul Bailey, Senior Fellow ICF International

# 1:30 – 3:00 PANEL 3: Industry Perspective

Vince Lord, Scientist Rohm & Haas

Daniel Chefitz, Partner Morgan Lewis

Phillip Retallick, Senior Vice President William F. O'Connor, Senior Vice President Clean Harbors Environmental Services

# Gordon E. Hart, Partner Paul Hastings

- 3:00 3:15 BREAK
- 3:15 3:45 Public Comment
- 3:45 4:15 Closing Remarks and Next Steps

Stan Meiburg, EFAB Mary Francoeur, EFAB Justin Wilson, EFAB